

Value Analysis & Standardization:

Systematic steps to support system-wide change

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Spend Analytics

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Greetings From Carol Stone

The focus of this issue is Spend Analytics, the process of aggregating, cleansing and analyzing spend data for the purposes of assessing standardization opportunities, reviewing contract compliance, improving operational management and reducing costs. In today's economic environment, spend analytics is of particular interest to many Value Analysis Professionals.

Inside, you'll find a collection of tips, terms and trends in Spend Analytics along with insights from a roundtable discussion with members of our editorial board, which now includes new members Melissa Amell, System Director, MMIS & Value Analysis, St. Thomas Health Services, Nashville, TN, and Joyce Hall, Clinical Resource Manager, Supply Chain Management, Hoag Hospital, Newport Beach, CA. They replace exiting members Paul Corish and Joyce Chavez to whom we extend our thanks and best wishes in their new endeavors.

Because this newsletter addresses a topic that we all face today, I'm sure you'll find this issue of interest. As always, if you know others who would like to receive our newsletter, please email me at carol.stone@crbard.com and we'll add them to our mailing list.



Carol Stone
Vice President, Corporate Marketing
C. R. Bard, Inc.

If you would like a copy of a previous issue of our newsletter, please send an email to wendy.lemke@crbard.com. Provide your email address and the newsletter topic.



Spend Analytics

THEORETICAL PERSPECTIVE

“The effectiveness and efficiency of an organization is a function of getting accurate information to the appropriate people at the appropriate time.” **Homer Schmitz, Hospital Information Systems**

Let others blame the current economy; however, long before the economic downturn, Value Analysis Professionals have been pressured to reduce costs in the face of physician preferences, dwindling reimbursements, and rising prices. With the usual methods of cost reduction exhausted, healthcare is turning to an industry standard of using **Spend Analytics** to capture and generate new sources of savings.

Sometimes called **data analytics** or **business intelligence**, the term Spend Analytics refers to the process of aggregating, cleansing, and analyzing spend data for the purposes of reducing costs and improving operational management. With Spend Analytics, Value Analysis Professionals can review their

spend data using credible analysis that can be used not only to identify and prioritize opportunities but also to effectively communicate results to their various constituents, such as physicians, clinicians, management, and staff.

Spend Analytics is a key component of **spend management** and is essential to spend data management. Spend Analytics or business intelligence platforms collect, classify, cleanse, and convert data from disparate systems, as well as provide alert, tracking and dashboard opportunities. Similar to other e-based systems (such as MMIS), Spend Analytics rely on computer technology to “inject efficiency, accuracy, and credibility into the never-ending cycle of product review, contracting, ordering, delivery, and payment.” [P. DeJohn]

Benefits of using Spend Analytics can include better contract compliance and a reduction in off-contract purchasing. “Analytics can promote visibility and insight ... the ability to access relevant information quickly and in context, and a deeper understanding of the underlying

causes of a situation or the likely outcome of a course of action under consideration.” [R. Kugel]

Hospital expenditures account for an estimated one-third of total U.S. spending on healthcare; and in hospitals, supplies account for one-third of all costs. “Hospitals cannot control supply costs until they know what they are spending, on what and with whom.” [U. Hubner/M. Elhorst] Spend Analytics, therefore, is essential in order to determine actual procedure costs, analyze patterns of use, and make future product choices that support both clinical and fiscal objectives.

While Spend Analytics can be time-consuming and often costly to initiate, the payback can be substantial. One consulting organization, Aberdeen Group, estimates that corporations can save up to 20 percent of total spending through comprehensive spend analysis. With U.S. healthcare expenditures at 17 percent of the gross domestic product and rising, the impact could be dramatic.

Spend Analytics

PRACTICAL PERSPECTIVE

“With standardized, updated information becoming regularly available, all supply chain partners – manufacturers, distributors, wholesalers, resellers and healthcare providers – are in a position to optimize their processes, building on accurate and structured data to be transmitted along the supply chain and be further analyzed for business and patient-care purposes.” **Ursula Hubner and Marc Elmhurst, eBusiness in Healthcare**

The primary goal of Spend Analytics is to provide easy access to information. This is not an easy task, as in many healthcare institutions systems are complex and fragmented, with Value Analysis

Professionals often creating manual spreadsheets using data from MMIS, OR systems, decision support and supplier or GPO resources.

The purpose of Spend Analytics is to make data searchable, available and transparent. The process of doing this is deceptively simple – merely five basic steps: collect, structure, store, transform and use – however, these steps can be challenging and time-consuming.

While some institutions might decide to develop spend analytics programs, others are turning to outside vendors, including those specializing in the needs of healthcare organizations. Either path requires an

intense understanding of the utilization of the data, availability and accuracy of data, extracting options, and resources to review and act on the data.

For Spend Analytics to be truly viable, data and technology are not enough. It also takes talent: people who know how to collect, combine and analyze. A good team, including cross-functional resources, is essential. Analysis, after all, requires the human factor: thinking about the evidence using the basic process of define, disassemble, evaluate and decide.

RAISING THE BAR WITH GS1

Globally operated and not-for-profit, GS1 is an organization that develops, promotes, and manages an integrated set of global standards that provides for accurate identification and communication of information regarding products, assets, services, and locations via its most recognizable symbol, the bar code. Originally created by manufacturers and retailers over 30 years ago to improve the efficiency of the distribution of food and goods to supermarkets, GS1 standards today are used by millions of companies in dozens of business sectors including healthcare.

While bar codes have been ubiquitous for decades, the healthcare system has yet to take full advantage of the many opportunities offered

by the data they carry. In fact, a 2001 study of healthcare supply chains showed that lack of data synchronization and visibility in purchasing data results in considerable error and re-work. Healthcare supply chain leaders agree that these deficiencies can and must be addressed by widespread adoption of GS1 global data standards for product and location identifiers such as the **GLN**, **GTIN**, **GDSN** and **UNSPSC**. Benefits include faster order processing times, lower order processing costs, fewer invoice exceptions, less off-contract spending and increased staff productivity as well as improved patient safety.

For more information about GS1, go to www.gs1.org or check out the quarterly digest at www.gs1.org/1/digest on the GS1 website.

Translating Data into Useful Information

1. **Collect** data from internal transactions processing systems such as order processing, inventory management, distributions, finance, HR, etc. and external resources such as supplier and customer systems, marketplace, and third party information sources.
2. **Structure** – organize data into logical groups and validate [cleanse/normalize] to ensure accuracy and consistency.
3. **Store** – house in a suitable place (data warehouse) to facilitate easy access.
4. **Transform** – convert data into information by sorting and selecting appropriate data, executing calculations or manipulations, and creating the desired report.
5. **Use** - distribute and provide access to legitimate uses and ensure that each user is equipped with necessary tools, skills and training to use effectively.

From Web-Based Supply Chain Management and Digital Signal Processing

Some Common Terms

Dashboard – A visual display of the most important information needed to achieve one or more objectives, consolidated onto a single computer screen so it can be monitored at a glance.

Data Scrubber - Cleanses collected data; identifies and remedies errors or omissions.

Data Warehouse – A database that serves as a repository for many types of business data from many sources.

GDSN (Global Data Synchronization Network) - A continuous, automated data management system to ensure that supply chain information (GLNs/GTINs) is identical and accessible to trading partners.

GLN (Global Location Number) - A 13-digit globally recognized number that can be used to identify legal entities and locations.

GTIN (Global Trade Item Number) - The globally unique GS1 Identification Number used to identify products or services as they move through the supply chain.

Online Analytical Processing (OLAP) – Allows users to look at data from across the organization and manipulate interactively to perform business related operations.

Relational Database Management System (RDBMS) – A database management system that stores data in the form of tables so that relationships between data can be easily managed, manipulated and transformed.

Spend Analytics - The process of aggregating, cleansing and analyzing corporate spending data for the purposes of reducing costs and improving operational management.

Spend Data – Data related to sourcing and procurement.

Spend Data Management – A collection of data management processes leveraging software tools built around core data classification and enrichment technologies.

Spend Management - Spend that is under control management.

Structured Query Language (SQL) – How data is extracted from relational databases.

Transaction Processing Systems – Used to manage huge amounts of data relating to operations such as billing, invoicing and auditing and not usually accessible to other systems.

UNSPSC (United Nations Standard Products and Services Code) - A hierarchical set of product categories used by supply chain partners worldwide to classify their products and services.

VA People *Viewpoint*

A Roundtable on Data Management

Members of our Editorial Board contributed to a roundtable discussion to share their views on Spend Analytics, how they use it and where they see it going. Joining in were Melissa Amell, System Director, MMIS & Value Analysis, St. Thomas Health Services; Joyce Hall, Clinical Resource Manager, Supply Chain Management, Hoag Hospital; Francine Parent, Senior Clinical Consultant, System Supply Chain Services, Sharp HealthCare; and Gina Thomas, Vice President Customer Management, MedAssets Inc.

Gina: When I was on the hospital side, I never had access to the Spend Analytics tools available today and spent a great deal of time creating numerous spreadsheets. It's critical to have access to spend data, not just to look at price, but cost per case, and coordinating clinical outcomes. There are many systems out there and often they don't talk to each other so a great deal of time is spent trying to connect the dots.

Melissa: Exactly. We have the ability to pull data but still have to rely on people to put it together. We do have interfaces but they tend to be one-way. And we're not fully integrated.

Francine: We're in the same situation. We have different systems in materials management and the OR and neither talks to the other. It makes it difficult, especially when we try to address physician specifications. We need good analysts to help us out.

Gina: And part of the problem is analysts may not understand certain clinical variations. So the data must be scrubbed so it's consistent and correct.

Francine: Part of my job is scrubbing data. It's a long, tedious process.

Gina: There are tools that can do scrubbing. The key is interoperability – integrating the data from multiple programs and systems and displaying the data in a format that is easy to analyze or manipulate.

Joyce: We're a single facility and are setting up a new system that can pull together a lot of data for analysis. Of course training's a must, especially as we're now web-based, which give us more flexibility, but it is different.

Melissa: From the demos I've seen, in the future we'll have access to a lot more information than we have today but because it will be more accessible, I see all this as changing our roles in the Supply Chain. Allowing us to be more proactive rather than reactive. Instead of pulling data, I'll be able to spend more time with physicians and clinicians, in the facility, on the floor.

Joyce: And having that interaction is critical. For example, when we reported our findings in a recent product trial, we were able to compare cost, preference, and patient outcomes in the analysis we presented to the department head. And he appreciated that and it made a difference. Basically, he said, "We as a group are 10% of the users; the nurses are the rest. If they like it, we'll take that into consideration."

Francine: Doctors are data driven. But when you can present the whole package, when you have the data to back it up, they'll listen.

What's Your View?

Share your view as a Viewpoint Guest!

As a Value Analysis Professional, your experience and expertise are welcome additions to our newsletter forum.

If you – or someone you know – would be willing to share your viewpoint on the topic of one of our upcoming newsletters, please contact Editor **Wendy Lemke** at wendy.lemke@crbard.com. We value your viewpoint!

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